

User's ▶▶▶▶▶ Manual

5-Port 10/100/1000M Switch

HGS5T



Website: www.hawkingtech.com
E-Mail: techsupport@hawkingtech.com
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FCC Warning

This equipment has been tested and found to comply with the regulations for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with this user's guide, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his/her own expense.

CE Mark Warning

This is a Class A product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

VCCI Warning

This is a product of VCCI Class A Compliance.

注意

この装置は、情報処理装置等電波障害自主規制協議会 (VCCI) の基準に基づく第一種情報技術装置です。この装置を家庭環境で使用すると電波妨害を引き起こすことがあります。この場合には使用者が適切な対策を講ずるよう要求されることがあります。

LIMITED WARRANTY

Hawking Technology guarantees that every H-GS5T 5-Port and HGS8T 8-Port 10/100/1000M Gigabit Switch is free from physical defects in material and workmanship under normal use for two (2) years from the date of purchase. If the product proves defective during this two-year warranty period, call Hawking Customer Service in order to obtain a Return Authorization number. The warranty is for repair or replacement only. Hawking Technology does not issue any refunds. BE SURE TO

HAVE YOUR PROOF OF PURCHASE. RETURN REQUESTS CANNOT BE PROCESSED WITHOUT PROOF OF PURCHASE. When returning a product, mark the Return Authorization number clearly on the outside of the package and include your original proof of purchase.

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Introduction

H-GS5T 5-Port 10/100/1000M Switch

Thank you for choosing the Hawking HGS5T 5-Port 10/100/1000M Auto-sensing Gigabit Switch. This switch is designed to integrate 10BASE-T, 100BASE-TX and 1000BASE-T networking environments with a standard UTP (unshielded twisted-pair) Ethernet cable connection in your Small Office/Home Office (SOHO) or Home environment. Simply plug in the networking cable and the HGS5T will automatically detect the maximum speed of the network connection to offer smooth network migrations and easy upgrades to network capacity. This switch also provides a set of diagnostic LEDs for easy recognition of network status and trouble-shooting issues.

Gigabit Ethernet Technology

Gigabit Ethernet is an extension of the IEEE 802.3 standard, and can deliver up to a tenfold increase in throughput over 100-Mbps Fast Ethernet and up to a hundredfold increase over 10-Mbps Ethernet. It utilizes the same packet structure and format, as well as support for CSMA/CD protocol, full duplex, flow control, and management objects. Because Gigabit

Ethernet is compatible with all 10-Mbps and 100-Mbps Ethernet environments; it provides a seamless upgrade without wasting existing investments in hardware, software, and/or trained personnel.



Introduction

H-GSST 5-Port 10/100/1000M Switch

With increased speed and more bandwidth, Gigabit Ethernet is a great solution for reducing network bottlenecks that frequently develop as computers and their buses get faster, and more users generate ever-greater traffic through the use of increasingly advanced applications. Upgrading key components, such as backbones and servers, to Gigabit Ethernet can greatly improve network response times and significantly increase the speed of traffic between your subnets.

Gigabit Ethernet supports video conferencing, complex imaging, and similar data-intensive applications. Likewise, since data transfers occur at speeds up to 10 times greater than Fast Ethernet, servers outfitted with Gigabit Ethernet NIC's (Network Interface Cards) are able to perform 10 times the number of operations in the same amount of time.



Features

H-GS5T 5-Port 10/100/1000M Switch

The H-GS5T is designed for easy installation and high performance and includes the following features:

- (5) 1000BASE-T Gigabit Ethernet ports
- Supports Auto-Negotiation for 10/100/1000Mbps and duplex mode
- Supports Auto-MDIX for each port
- Supports Full/Half duplex transfer mode for 10 and 100Mbps
- Supports Full duplex transfer mode for 1000Mbps
- Full wire speed reception and transmission
- Store-and-Forward switching method
- Supports 8K of absolute MAC addresses
- Supports 256K Bytes of RAM for data buffering
- Set of front-panel diagnostic LEDs
- IEEE 802.3x flow control for full-duplex
- Back pressure flow control for half-duplex



Package Contents

H-GS5T 5-Port 10/100/1000M Switch

The complete H-GS5T package consists of:

- One H-GS5T 5-Port 10/100/1000M Auto-sensing Gigabit Ethernet Switch
- Four Rubber Feet with Adhesive Backing
- One External Power Adapter
- One User's Manual

Check to make sure that the unit was not damaged during shipping and that no items are missing. If you encounter a problem, please contact your dealer.

Please read this manual thoroughly, and follow the installation and operation procedures detailed in this user's manual.



Hardware Description

H-GS5T 5-Port 10/100/1000M Switch

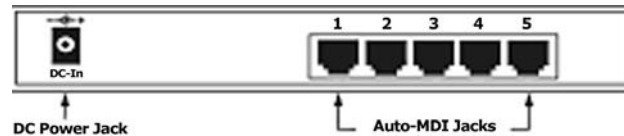
This chapter describes the front panel, rear panel, and LED indicators of the switch.

Front Panel



The LED indicators will help you monitor the status of each port and connected segment. The functions of the LED indicators are described on the following page.

Rear Panel



The rear panel of the switch consists of a DC power connector and five 10/100/1000M auto-negotiation RJ-45 ports. The figure on the previous page shows the rear panel of the switch.



Hardware Description

H-GSST 5-Port 10/100/1000M Switch

LED Indicators	Description
Power	The indicator is lit when the power is on. Otherwise, it remains unlit.
Link/Activity	These LEDs are lit when there is a connection (or link) to the desired port. The LEDs blink whenever reception or transmission (i.e., Activity) of data is taking place.
Speed (10/100/1000M)	These LEDs are Off when there is a 10Mbps connection (or link) to a 10Mbps Ethernet device at the associated port; they are lit Green when there is a 100Mbps connection (or link) to a 100Mbps Fast Ethernet device at the associated port; they are lit Yellow when there is a 1000Mbps connection (or link) to a 1000Mbps Gigabit Ethernet device at the associated port.



Hardware Installation

H-GS5T 5-Port 10/100/1000M Switch

- Step 1.** Place the H-GS5T on a smooth surface.
- Step 2.** Connect the Power Adapter to the unit. (At this point, do not plug the adapter into the outlet.)
- Step 3.** Connect a server, workstation, or PC to the switch using a standard RJ-45 Ethernet cable. (For best results, use a CAT 5E cable.)
- Step 4.** Repeat Step 3 as necessary for the remaining ports. Also, if needed, another hub/switch can be connected to any port on the unit.
- Step 5.** Ensure that each device is connected properly. Plug the power adapter into the power outlet.

***Note:** Make sure that there is proper heat dissipation from and adequate ventilation around the switch.*



N-way Process

H-GSST 5-Port 10/100/1000M Switch

“Auto-negotiation” (N-way) mode automatically sets the best possible bandwidth (10Mbps, 100Mbps, or 1000Mbps) when a connection is established with another network device.

Auto-negotiation functions are determined by these set data-transfer rate priorities:

- a. 1000Base-T Full Duplex (2000Mbps)
- b. 1000Base-T Half Duplex (1000Mbps)
- c. 100Base-TX Full Duplex (200 Mbps)
- d. 100Base-TX Half Duplex (100Mbps)
- e. 10Base-T Full Duplex (20Mbps)
- f. 10Base-T Half Duplex (10Mbps)

Each port with N-way capability supports Half/Full Duplex functions.



Specifications

H-GS5T 5-Port 10/100/1000M Switch

Standards	IEEE 802.3ab 1000BASE-T IEEE 802.3u 100BASE-TX IEEE 802.3 10BASE-T IEEE 802.3x Flow Control		
Protocol	CSMA/CD		
Data Transfer Rate	Ethernet	10Mbps 20Mbps	(Half duplex) (Full duplex)
	Fast Ethernet	100Mbps 200Mbps	(Half duplex) (Full duplex)
	Gigabit Ethernet	1000Mbps 2000Mbps	(Half duplex) (Full duplex)
Network Cables	Ethernet	2-Pair UTP CAT 3, 4, 5, 5E Unshielded Twisted Pair (UTP) Cable	
	Fast Ethernet	2-Pair UTP CAT 5, 5E Unshielded Twisted Pair (UTP) Cable	
	Gigabit Ethernet	4-Pair UTP CAT 5, 5E Unshielded Twisted Pair (UTP) Cable	
Number of Ports	HGS5T: (5) 1000Base-T Gigabit Ethernet Ports		



Specifications

H-GS5T 5-Port 10/100/1000M Switch

MAC Address Table	HGS5T: 4K Entries
Modes	Half and Full Duplex, auto-negotiation
Forwarding Mode	Store-and-Forward
Flow Control (IEEE 802.3x)	Half duplex: backpressure Full duplex: IEEE 802.3x
Auto Crossover	Auto-crossover on each port
Packet Filtering/ Forwarding Rate	Full wire speed
RAM Buffer	437.5K Bytes per device
MAC Address Learning	Self-learning, auto aging
DC Inputs	12V DC 1A
Power Consumption	7.5 Watts
Operating Temp.	10°C - 55°C



Specifications

H-GSST 5-Port 10/100/1000M Switch

Humidity	0% - 90% RH, non-condensing
Dimensions	187 x 30 x 100mm (W x H x D) 7.36" x 1.18" x 3.94" (W x H x D)
Certifications	FCC Class A, CE Marking Class A, VCCI Class A